

WHAT IS CLAIMED IS:

1. A foldable truss member, comprising:

a plurality of adjacently connected side members together forming a peripheral boundary of the truss member, each side member comprising:

an elongated support member having a side surface;

a bridging member hingedly connected to the side surface of the support member at an attachment point of the support member, the bridging member having an extension at an edge of the bridging member opposite the attachment point; and

a plurality of hinge members pivotally joining the bridging member to the support member and an adjacent side member, each hinge member allowing relative rotation of the side members.
2. The truss member according to claim 1, wherein each bridging member further comprises a sawtooth-shaped member having a first and second set of oppositely disposed peaks, the first set of peaks hingedly attached to the attachment point of the support member, and the extensions of each bridging member comprising the second set of peaks.
3. The truss member according to claim 2, wherein the hinge members comprise surfaces frictionally engaging the bridging members.

4. A foldable truss member, comprising:

a plurality of adjacently connected side members together forming a peripheral boundary of the truss member, each side member comprising:

an elongated support member having a side surface;

a bridging member hingedly connected to the side surface of the support member at an attachment point of the support member, the bridging member having an extension at an edge of the bridging member opposite the attachment point; and

a plurality of hinge members pivotally joining the extension of each side member to a support member of an adjacent side member, each hinge member allowing relative rotation of adjacent side members, a plurality of edges between adjacent side members defining a plurality of corners of the truss member.

5. The truss member according to claim 4, wherein each bridging member further comprises a sawtooth-shaped member having a first and second set of oppositely disposed peaks, the first set of peaks hingedly attached to the attachment point of the support member, and the extensions of each bridging member comprising the second set of peaks.

6. The truss member according to claim 5, wherein the hinge members comprise surfaces frictionally engaging the bridging members.

7. A foldable truss member, comprising:

a plurality of side member means, each side member means comprising a receiving means located at a lower edge of the side member means, the side member means adjacently arranged so that the lower edges of the adjacently arranged side member means form a closed shape having a plurality of corners; and

a plurality of hinging means connecting adjacently arranged side member means, the hinging means allowing relative rotation between adjacently arranged side member means so that the side member means are foldable into a substantially flat assembly.

8. The truss member according to claim 7, further comprising bridging means hingedly connecting at least two side member means.

9. The truss member according to claim 8, wherein the bridging means comprise a sawtooth-shaped member having a first and second set of oppositely disposed peaks, the first set of peaks hingedly attached to the attachment point of the side member means, and the extensions of each bridging means hingedly connecting the second set of peaks to an adjacent side member means.

10. The truss member according to claim 9, wherein the hinge means comprise surfaces frictionally engaging the bridging means and the hinge means are fixedly connected to the side member means.

11. A foldable truss member, comprising:

a plurality of side member means each comprising a lower edge and two side edges, the side member means adjacently arranged so that the lower edges of the adjacently arranged side member means form a closed shape; and

a plurality of hinging means connected between the side edges of the adjacently arranged side member means, the hinging means allowing relative rotation between adjacently arranged side member means so that the side member means are foldable into a substantially flat assembly, the side edges of the side member means defining a plurality of corners of the truss member.

12. The truss member according to claim 11, further comprising bridging means hingedly connecting at least two side member means.

13. The truss member according to claim 12, wherein the bridging means comprise a sawtooth-shaped member having a first and second set of oppositely disposed peaks, the first set of peaks hingedly attached to the attachment point of the side member means, and the extensions of each bridging means hingedly connecting the second set of peaks to an adjacent side member means.

14. The truss member according to claim 13, wherein the hinge means comprise surfaces frictionally engaging the bridging means and the hinge means are fixedly connected to the side member means.

15. A method of assembling a truss member, comprising:

adjacently coupling a plurality of side members to form a peripheral boundary for each of the truss members, each of the side members including an elongated edge hingedly attached to a bridging member, the bridging members hingedly attached to adjacent side members; and

relatively rotating side members and the bridging members to place the side members of the truss member in a deployed configuration.

16. The method according to claim 15, further comprising:

relatively rotating the adjacent side members about the elongated edges with a folding force sufficient to overcome the holding force of a plurality of hinge members; and

rotating the side members to put the truss member in a folded configuration.

17. The method according to claim 15, wherein at least two adjacent side members are hingedly connected together via a plurality of hinge members connecting the side members to a bridging member.

18. A method of assembling a truss member, comprising:
adjacently coupling a plurality of side members to form a peripheral boundary for each of the truss members, each of the side members including an elongated edge hingedly attached to an adjacent side member, the elongated edges of the side members defining a plurality of corners of the truss member;
rotating the adjacent side members about the elongated edges to put the side members of the truss member in a deployed configuration; and
rotating the side members to overcome a holding force in the deployed configuration of the truss member to prevent further relative rotation of the side members.

19. The method according to claim 18, further comprising:
relatively rotating the side members to overcome a folding force sufficient to overcome the holding force of a plurality of hinge members; and
rotating the adjacent side members to place the truss member in a folded configuration.

20. The method according to claim 19, wherein adjacent side members are connected via a plurality of hinge members which connect a plurality of bridging members between adjacent side members.